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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/788,956	02/27/2004	David Harvey Schroeder		6673

7590 06/27/2005

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EXAMINER	
JARRETT, RYAN A	

ART UNIT	PAPER NUMBER
2125	

DATE MAILED: 06/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/788,956	SCHROEDER ET AL.	
	Examiner	Art Unit	
	Ryan A. Jarrett	2125	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *27 February 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-10* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-10* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☒ Claim(s) *1-10* are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *5/24/04*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Pro Se

1. An examination of this application reveals that applicant is unfamiliar with patent prosecution procedure. While an inventor may prosecute the application, lack of skill in this field usually acts as a liability in affording the maximum protection for the invention disclosed. Applicant is advised to secure the services of a registered patent attorney or agent to prosecute the application, since the value of a patent is largely dependent upon skilled preparation and prosecution. The Office cannot aid in selecting an attorney or agent.

A listing of registered patent attorneys and agents is available on the USPTO Internet web site http://www.uspto.gov in the Site Index under "Attorney and Agent Roster." Applicants may also obtain a list of registered patent attorneys and agents located in their area by writing to the Mail Stop OED, Director of the U. S. Patent and Trademark Office, PO Box 1450, Alexandria, VA 22313-1450.

However, since the application does not appear to contain any allowable subject matter, then the Applicant would probably be best advised to not secure the services of a registered patent attorney or agent.

Power of Attorney

2. This application has been filed by two pro se inventors. Therefore, all correspondences to the Office must be signed by both people, or there must be a

limited power of attorney from one inventor to the other. Likewise, telephone interviews cannot be conducted with only one inventor.

Election/Restrictions

3. Restriction to one of the following inventions is required under 35 U.S.C. 121:

I. Claims 1-7, drawn to a process for controlling temperature in an HVAC system.

II. Claims 8-10, drawn to a process for encoding and decoding digital data for communication in a serial sequence.

4. The inventions are distinct, each from the other because of the following reasons:

Inventions I and II are related as subcombinations disclosed as usable together in a single combination. The subcombinations are distinct from each other if they are shown to be separately usable. In the instant case, invention II has separate utility since a process for encoding and decoding digital data can be used in a variety of systems, not just HVAC systems. See MPEP § 806.05(d).

Because these inventions are distinct for the reasons given above and the search required for Group I is not required for Group II, restriction for examination purposes as indicated is proper.

A telephone call was made to David Schroeder in 1/05 to request an oral election to the above restriction requirement, but did not result in an election being made.

Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Claim Rejections - 35 USC § 101

5. 35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

6. Claims 1-10 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Regarding claims 1-7, the language of the claim raises a question as to whether the claim is directed merely to an abstract idea that is not tied to a technological art, environment, or machine which would result in a practical application producing a concrete, useful, and tangible result to form the basis of statutory subject matter under 35 U.S.C. 101.

The claims are directed to a method that does not require computer-implementation or use of technology to accomplish. The claims allow for the

involvement of subjective human decision and therefore do not necessarily produce repeatable, concrete results.

Claim 1 (particularly steps a and d) amounts to a list of desired functionalities with no definitive recitation of process steps or system architecture that would implement these desired functionalities.

Claims 2-7 depend from claim 1 and incorporate the same deficiencies.

Claims 8 is drawn merely to a combination of synchronizing and data pulses, with no process steps recited. The claim as a whole amounts mere to "function descriptive material" (i.e., a data signal) that is non-statutory under 35 U.S.C. 101. See MPEP 2106.

Claims 9 and 10 depend from claim 8 and incorporate the same deficiencies.

Claim Rejections - 35 USC § 112

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claims 1-10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1-10 rejected as failing to define the invention in the manner required by 35 U.S.C. 112, second paragraph. The claim(s) are narrative in form and replete with indefinite and functional or operational language. The structure or method which goes to make up the device or process must be clearly and positively specified. The

structure or method must be organized and correlated in such a manner as to present a complete operative device or process. The claim(s) must be in one sentence form only. Note the format of the claims in the patent(s) cited.

Claim 1 is directed to a process, but no process steps are recited. This is improper under 35 U.S.C. 112, 2nd paragraph. The claim is indefinite due to a failure to delineate at least one active, positive method step. The limitations "operation", "control", "options", and "means" do not amount to steps of a process.

Regarding claim 1, the phrase "essentially" renders the claim indefinite because the specification does not define the word "essentially". See MPEP § 2173.05(d).

Claim 2 recites the limitation "the warmer process logic" in line 1. There is insufficient antecedent basis for this limitation in the claim.

Regarding claim 2, where possible, claims are to be complete in themselves. Incorporation by reference to a specific figure or table "is permitted only in exceptional circumstances where there is no practical way to define the invention in words and where it is more concise to incorporate by reference than duplicating a drawing or table into the claim. Incorporation by reference is a necessity doctrine, not for applicant's convenience. In this case, the flow chart of Fig. 2 is definable in words. See MPEP § 2173.05(s).

Claim 3 recites the limitation "the warmer process logic" in line 1. There is insufficient antecedent basis for this limitation in the claim.

Regarding claim 4, where possible, claims are to be complete in themselves. Incorporation by reference to a specific figure or table "is permitted only in exceptional

circumstances where there is no practical way to define the invention in words and where it is more concise to incorporate by reference than duplicating a drawing or table into the claim. Incorporation by reference is a necessity doctrine, not for applicant's convenience. In this case, the signal of Fig. 4 is definable in words. See MPEP § 2173.05(s).

Claim 5 recites the limitation "the encoding process" in line 1. There is insufficient antecedent basis for this limitation in the claim. Claim 1 recites a "means encoding", but no "encoding process".

Claim 6 recites the limitation "the decoding process" in line 1. There is insufficient antecedent basis for this limitation in the claim. This claim precludes any reasonable comparison with the prior art due to the level of indefiniteness.

Claim 7 recites the limitation "the elements" in line 1. There is insufficient antecedent basis for this limitation in the claim. This claim precludes any reasonable comparison with the prior art due to the level of indefiniteness.

Claim 8 is directed to a process, but no process steps are recited. This is improper under 35 U.S.C. 112, 2nd paragraph. The claim is indefinite due to a failure to delineate at least one active, positive method step.

Claims 9 and 10 depend from claim 8 and incorporate the same deficiencies.

9. Despite the rejections with regard to 35 U.S.C. 101 and 112 above, an effort has been made to examine the application on the merits of the invention, as best understood by the specification. It is not clear how the system depicted in Fig. 1 is different from any basic thermostatically controlled HVAC system. A comparator makes a comparison between a setpoint temperature and an actual temperature. Based on the temperature difference between the setpoint and the actual temperature, a microprocessor controls the on and off cycling of the HVAC equipment. Most any HVAC system operates in this manner. The "warmer process logic" of Fig. 2 reads on the setback control system of Pierret et al. US 5,363,904. And since these functionalities are known in the art, the source code statements of Figs. 3 and 5 would have been obvious as detailed below.

Claim Rejections - 35 USC § 102

10. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

11. As best understood, claims 1 and 4 are rejected under 35 U.S.C. 102(b) as being anticipated by Harmon, Jr. US 4,655,279. Harmon, Jr. discloses:

1. A process for accurate and consistent control of temperature and ventilation within precise performance parameters for heating, ventilation, and/or cooling systems comprising:

a) operation of HVAC equipment essentially independent of temperature differentials (e.g., col. 24 line 66 – col. 25 line 22);

b) operation of HVAC equipment for minimum periods of time regardless of other operating conditions (e.g., col. 24 line 66 – col. 25 line 22);

c) control of equipment to assure idle periods for minimum times (e.g., col. 24 line 66 – col. 25 line 22);

d) more efficient and comfortable ventilation options when heating or cooling apparatus is not in operation (e.g., col. 28 lines 26-41);

e) means changing the effective temperature setting on demand on a temporary basis, and returning to the original setting automatically, with provision for canceling such operation prematurely (e.g., col. 27 line 23 – col. 28 line 25);

f) means encoding HVAC equipment operating parameters to produce a digital signal to communicate such parameters to said equipment or a controller operating said equipment (e.g., col. 28 line 49 – col. 29 line 13).

4. The process of claim 1 wherein the encoding process results in a signal similar to Figure 3 (e.g., col. 28 line 49 – col. 29 line 13).

Claim Rejections - 35 USC § 103

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

13. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Harmon, Jr. as applied to claim 1 above, and further in view of Pierret et al. U.S. Patent No. 5,363,904. Harmon, Jr. does not appear to specifically disclose the flow logic of Fig. 2. However, Pierret et al. discloses the flow logic of Fig. 2 (e.g., col. 2 line 5 – col. 4 line

59). Pierret et al. and Harmon, Jr. et al. are analogous art since both relate to thermostatically-controlled HVAC systems. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Harmon, Jr. with Pierret et al. since Pierret et al. teaches that an operator can initiate a program that provides a controlled relaxation of temperature which does not permit a dramatic change in temperature at any point in time (col. 1 lines 40-43).

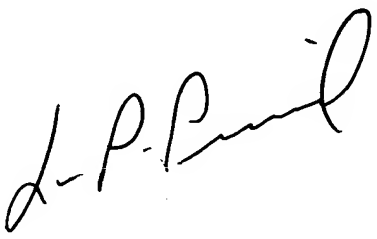
14. Claims 3 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Harmon, Jr. as applied to claim 1 above. Per claim 3, Harmon, Jr. discloses the "means" functionality of claim 1, step e (e.g., col. 27 line 23 – col. 28 line 25);. Per claim 5, Harmon, Jr. discloses that an analog-to-digital converter for "encoding" HVAC operating parameters to produce a digital binary signal to control the HVAC equipment (e.g., col. 28 line 49 – col. 29 line 13). Harmon, Jr. does not disclose the particular source code statements used to achieve these functionalities. However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to create a program to achieve the desired functionality disclosed by Harmon, Jr. And absent any evidence of criticality or unexpected results of Applicant's particular source code, a program to achieve the functionality would have been well within the realm of one of one ordinary skill in the art to determine.

Conclusion

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ryan A. Jarrett whose telephone number is (571) 272-3742. The examiner can normally be reached on 10:00-6:30 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Leo Picard can be reached on (571) 272-3749. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Ryan A. Jarrett
Examiner
Art Unit 2125

RAJ
6/22/05

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